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IN THE CLAIMS

49. (CURRENTLY AMENDED) A method of welding a plurality of overlapping members having a tenacious surface oxide layer, the method comprising the steps of:

overlapping a plurality of members having a tenacious surface oxide layer;

melting said the plurality of members at a predetermined location to form a weld pool;
and

disturbing the weld pool by introducing a disturbing member into the weld pool.

50. (CURRENTLY AMENDED) The method as claimed in claim 49, wherein the step of melting the plurality of members to form the weld pool is achieved by using a plasma arc torch.

51. (CURRENTLY AMENDED) The method as claimed in claim 49, further including the step of clamping the plurality of overlapping members prior to forming the weld pool.

52. (PREVIOUSLY PRESENTED) The method as claimed in claim 49, wherein the disturbing member is consumable.

53. (CURRENTLY AMENDED) The method as claimed in claim 52, wherein the disturbing member has a composition substantially similar to that of the metal forming the plurality of members.

54. (PREVIOUSLY PRESENTED) The method as claimed in claim 49, wherein the disturbing member is non-consumable.

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55. (CURRENTLY AMENDED) A method of welding a plurality of overlapping members having a tenacious surface oxide layer, the method comprising the steps of:

overlapping a plurality of members having a tenacious surface oxide layer;

melting said the plurality of members at a predetermined location to form a weld pool;
and

disturbing the weld pool by introducing a disturbing member into the weld pool by advancing the disturbing member into the weld pool at a speed of advance and to a predetermined depth, and then withdrawing the disturbing member at a speed of withdrawal.

56. (CURRENTLY AMENDED) The method as claimed in claim 55, further including the intermediate step of holding the disturbing member in the weld pool for a predetermined time.

57. (CURRENTLY AMENDED) The method as claimed in claim 55, wherein the speed of advance and the speed of withdrawal of the disturbing member is are variable.

58. (CURRENTLY AMENDED) The method as claimed in claim 55, wherein[[,]] the speed of withdrawal is at least equal to the speed of advance.

59. (CURRENTLY AMENDED) The method as claimed in claim 49, wherein movement of the disturbing member is at a relatively shallow angle relating to the a plane of the weld pool.

60. (PREVIOUSLY PRESENTED) The method as claimed in claim 59, wherein the angle is greater than 30°.

61. (PREVIOUSLY PRESENTED) The method as claimed in claim 60, wherein the angle is less than 45°.

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62. (PREVIOUSLY PRESENTED) The method as claimed in claim 49, wherein the disturbing member is introduced into the weld pool to one side thereof to promote a stirring effect.

63. (CURRENTLY AMENDED) The method as claimed in claim 49, the method including disturbance wherein the step of disturbing the weld pool includes employing by a welding gas.

64. (CURRENTLY AMENDED) The method as claimed in claim 63, wherein the welding gas is caused to impinge on the weld pool at an angle and in a manner to promote swirling of the weld pool.

65. (PREVIOUSLY PRESENTED) The method as claimed in claim 49, wherein the weld pool is supported from beneath.

66. (PREVIOUSLY PRESENTED) The method as claimed in claim 50, wherein the step of disturbing the weld pool includes disturbance by pulsing a welding current of the plasma arc torch.

67. (CURRENTLY AMENDED) A welding apparatus for welding a plurality of overlapping members having a tenacious surface oxide layer, the apparatus comprising:
a plurality of overlapping members having a tenacious surface oxide layer;
a plasma arc torch operable to form a weld pool in a work piece;
a weld pool disturber including a disturbing member which is movable into the weld pool to a depth sufficient to penetrate the tenacious surface overlapping oxide layers present in the weld pool; and
a weld pool supporting member support.

68. (CANCELLED)

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69. (PREVIOUSLY PRESENTED) The apparatus as claimed in claim 67, wherein the disturbing member is consumable.

70. (CURRENTLY AMENDED) The apparatus as claimed in claim 69, wherein the disturbing member includes a wire having a composition substantially similar to that of the workpiecework piece.

71. (PREVIOUSLY PRESENTED) The apparatus as claimed in claim 70, wherein the wire is movable by a feed mechanism.

72. (CURRENTLY AMENDED) The apparatus as claimed in claim 71, wherein the feed mechanism is ~~operable to move~~~~moves~~ the wire at least one ~~a~~ predetermined feed ~~rate~~~~rate~~ relative to the weld pool, ~~in use~~.

73. (CURRENTLY AMENDED) The apparatus as claimed in claim 71, wherein the feed mechanism includes ~~a guide means~~~~feature~~ to guide the wire or filament to a predetermined location in the weld pool.

74. (CURRENTLY AMENDED) The apparatus as claimed in claim 67~~68~~, wherein the disturbing member is non-consumable.

75. (CURRENTLY AMENDED) The apparatus as claimed in claim 68, wherein the ~~weld pool support member~~~~comprises~~ includes a support surface having a recess adapted to support the weld pool.

76. (CURRENTLY AMENDED) The apparatus as claimed in claim 75, wherein the ~~weld pool support member~~~~is adapted to allow~~~~allows~~ the recess to vent when the weld pool is formed.

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77. (CURRENTLY AMENDED) The apparatus as claimed in claim 6867, wherein the supporting member ~~including weld pool support~~ includes a body having an insert, the insert defining the support surface, wherein the insert is manufactured from ~~a~~ an insert material having a lower thermal conductivity than the body material of the body.

78. (CURRENTLY AMENDED) The apparatus as claimed in claim 6867, wherein the supporting member ~~weld pool support~~ is provided with a cooling system.

79. (CURRENTLY AMENDED) The apparatus as claimed in claim 6867, wherein the supporting member ~~weld pool support~~ has a peripheral raised edge against which the work piece is received.

80. (CURRENTLY AMENDED) The apparatus as claimed in claim 67, wherein the plasma arc torch and ~~a~~ supporting member ~~the~~ ~~weld pool support~~ are movable relative to one another to enable the work piece to be clamped therebetween.

81. (CURRENTLY AMENDED) The apparatus as claimed in claim 67, wherein an electric welding current of the plasma ~~arc~~ torch is ~~pulsable~~ pulses during welding to assist disturbance of the ~~tenacious~~ surface oxide layer.

82. (NEW) The method as recited in claim 49, wherein the step of overlapping occurs before the step of melting.

83. (NEW) The method as recited in claim 49, wherein the step of disturbing breaks the tenacious surface oxide layer.

84. (NEW) The apparatus as recited in claim 67, wherein the disturbing member breaks the tenacious surface oxide layer.